

REMARKS/ARGUMENTS

Favorable reconsideration and allowance of the present patent application are respectfully requested in view of the foregoing amendments and the following remarks. Claims 1-3, 5-6, 8-9, 12-15, 18-33 are pending in the application. Claims 12-14 and 23-24 have been amended to address minor informalities. New claims 25- 33 have been added to define additional aspects of the invention.

Claim Objections

Claims 14, 23 and 24 were objected to because of informalities. Each of the informalities identified in the Office Action has been addressed in this Amendment. Applicants accordingly request the Examiner to reconsider and withdraw these objections.

35 U.S.C. § 112 Rejections

Claim 12 was rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter set forth therein. Specifically, the features “the audio codec” and “the audio multiplexer” lacked antecedent basis. These formalities identified in the Office Action have been addressed in this Amendment, and Applicants accordingly request the Examiner to withdraw the rejection.

Reply to Examiner’s Response to Arguments

Since the Examiner has maintained the prior rejections and has provided arguments in support of this position, Applicants will initially address the Examiner’s response.

The Examiner asserts that:

Adams also teaches a first input for receiving an audio multiplexer input that identifies whether a signal provided to the audio codec by the audio multiplexer is one of voice, stereo music, and mono music. This type of signal is determined by the sensing circuit. If a headphone is detected, voice or mono music is identified. If a headphone is detected, the type of signal is identified as stereo music. If a headset is detected, voice or mono music is identified.

(See Office Action: pages 6-7; para. no. 8.) Applicants respectfully submit that the Examiner is misinterpreting the Adams reference.

Adams merely teaches that sensor unit 210 is configured to “detect the presence of a plug for a cellular phone 106 or a plug for a stereo headset 108” (col. 3, lines 62-64). Furthermore, Adams teaches that “the sensing is done on both channels; if both channels are at low impedance, then a stereo headphone is installed. If only one channel is at low impedance, then the other channel is the microphone input and a telephone headset is installed. If neither channel is at low impedance, then the system assumes that nothing is installed” (col. 4, lines 20-26).

Because the headphones/headset are passive devices, the sensing unit 210 will not detect, as the Examiner seems to be asserting, signals of any form being generated at the jack 106/108. To determine the transducer’s impedance, the sensor must supply a DC test signal generated by a 3 Volt source. A comparator 224 is used to compare the test signal with a reference, and the voltage level produced by the comparator will be proportional to the DC impedance of the transducer. (See col. 4, lines 26-45; Fig. 4.)

Applicants point out that the type of signals produced by the AM/FM Radio unit 202 and the cellular telephone unit 200 are provided independently of the sensor and the switching unit 203. Switching units 203 merely direct which signals are provided to the jack 106/108.

Applicants therefore maintain that Adams fails to disclose, at least, “an audio mux input identifying a type of a signal that the codec received from the audio mux ... and ... a control output to the codec based on the ... identified type of the signal,” as recited in claim 1; “determining a type of received audio signals; wherein the type identifies whether a signal provided to the audio codec by the audio multiplexer is one of voice, stereo music, and mono music,” as recited in claim 12; and “a stereo/mono control unit having a first input for receiving an audio multiplexer input that identifies whether a signal provided to the audio codec by the audio multiplexer is one of voice, stereo music, and mono music,” as recited in claim 23.

Accordingly, Applicants respectfully request that the Examiner withdraw the rejections of the claims.

The Examiner further asserts that “Adams teaches disabling components based on whether the radio or telephone function is being used.” (See Office Action: page 5, para. no. 8.) Applicants submit that Adams does not disable or deactivate the AM/FM Radio 202 or the cellular telephone unit 200. Adams merely discloses disconnecting the output signals of these units from reaching the output plug, depending upon the type of plug sensed, and the mode of the electronic device 50. In other words, the functionality of the AM/FM Radio is not disabled, as it is still producing a usable signal. This usable signal is prevented from reaching the headphones/headset by the switch.

The specification of Adams teaches the following.

The switch 204 has a contact A coupled to the right stereo or mono input (sic)¹ of the AM/FM radio unit 202, and a second contact B coupled to the receiver output of the cellular telephone unit 200. The switch 206 includes a contact C coupled to the left stereo output of the AM/FM radio unit 202 and a second contact D coupled to the microphone input of the telephone unit 200.

(See col. 3, lines 55-61.) Applicants submit that disconnecting the output signals from reaching the headphone jack is not the same as “disabling” the AM/FM radio unit 202.

In fact, Adams disclosure provides an arrangement where one channel from both the AM/FM radio unit and the cellular telephone unit 200 are connected to the phone jack when the radio is not being used:

If the sensing circuit 210 detects the presence of a plug 108 from a telephone headset 103, then the switch 204 will be maintained in the A position and the switch 206 will be maintained in the D position in the event that an outgoing or incoming telephone call is detected. However, if the radio is being used, the control processor 208 and the sensor 210 will maintain the switch 204 in the A position and the switch 206 in the C position.

(See col. 4, lines 8-15.) Here Adams discloses a configuration where the right channel of the AM/FM radio unit is connected to the headset 103 (switch 204 in the A position); however, in this configuration, the radio is not being used. Note that when the radio is being used switch 204 will maintain the A position, and switch 206 is placed in the C position. If the radio is not being used, and one of its channels (Right/Mono) is connected to the headset 103, it cannot be in an activated state.

In summary, Applicants submit that the states of switches 204, 206 disclosed in Adams cannot be used to infer the state of activation or deactivation of the AM/FM Radio unit 202 or the

¹ Applicants submit that the word “input” is used in error here, and should accordingly read as “output”. If a right channel “input” of the AM/FM radio unit were connected to the headphone jack, it would not produce any sound through the headphone transducer(s).

cellular telephone unit 200. According, Adams cannot be used to maintain the 102 rejection of the claims.

Therefore, Applicants maintain that Adams fails to disclose, at least, “providing a control output to disable or enable a first channel in a receive audio processing path based on the type of the audio output device and the type of received audio signals,” as recited in claim 12.

Finally, the Examiner asserts that “[t]hough Adams does not specifically mention a codec and audio multiplexer, it is inherent in the art (as admitted in Applicants’ specification) that these components are in mobile devices” (Office Action: page 6, lines 15-17).

Applicants submit codecs and audio multiplexers “are not inherent in the art.” Moreover, the specification of the instant application does not, as the Examiner implies, state that codecs and audio multiplexers are inherent. The background merely states that “[c]odecs are in general use in various mobile units, such as cellular phones” ([0007]).

“In relying upon the theory of inherency, the examiner must provide a basis in fact and/or technical reasoning to reasonably support the determination that the allegedly inherent characteristic necessarily flows from the teachings of the applied prior art.” *Ex parte Levy*, 17 USPQ2d 1461, 1464 (Bd. Pat. App. & Inter. 1990).

“The fact that a certain result or characteristic may occur or be present in the prior art is not sufficient to establish the inherency of that result or characteristic. *In re Rijckaert*, 9 F.3d 1531, 1534, 28 USPQ2d 1955, 1957 (Fed. Cir. 1993).

Applicants submit the Examiner has merely made an assertion regarding the inherency of these features, and not provided any facts and/or technical reasoning to establish a prima facie case.

Moreover, Applicants point out that Adams discloses details regarding the AM/FM radio unit, but fails set forth any disclosure that would suggest or imply to one of ordinary skill in the art that a codec and audio multiplexer are inherent: “[t]he AM/FM radio unit 202 includes an AM/FM receiver 252 which may include digital-to-analog converters as well as AM/FM demodulators. An AM/FM radio tuner control unit 254 is also provided.” (See col. 3, lines 29-32.)

Accordingly, because Adams fails to disclose, either explicitly or inherently, all of the features recited in claims 1, 12, and 22, Applicants request that the Examiner withdraw the rejection.

35 U.S.C. § 102 Rejections

The Examiner maintained the rejection of claims 1-3, 5, 6, 8, 9, 12-15 and 18-24 under 35 U.S.C. § 102(e) as allegedly being anticipated by Adams (U.S. Patent No. 6,594,366).

Since the Examiner has maintained his rejection of the claims as noted above, Applicants once again traverse these rejections. Applicants expressly maintain the reasons from the prior response to clearly indicate on the record that Applicants have not conceded any of the previous positions relative to the maintained rejections. For brevity, Applicants expressly incorporate the prior arguments presented in the response, dated January 24, 2008, without a literal rendition of those arguments in this response.

Further, the dependent claims are allowable at least by virtue of their dependency on the above-identified independent claims. See MPEP § 2143.01. Moreover, these claims recite additional subject matter, which is not suggested by the documents taken either alone or in combination.

CONCLUSION

In view of the foregoing amendments and remarks, it is respectfully submitted that the application is in condition for allowance. If the Examiner believes that any additional changes would place the application in better condition for allowance, the Examiner is invited to contact the undersigned attorney, at the telephone number listed below.


Application No. 09/865,145
Amendment dated May 12, 2008
Reply to Office Action of February 14, 2008

Deposit Account Authorization

To the extent necessary, a petition for an extension of time under 37 C.F.R. 1.136 is hereby made. Please charge any fees or overpayments that may be due with this response to Deposit Account No. 17-0026.

Respectfully submitted,

Dated: 5/12/08

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